

VARIABLE AIR VOLUME ENVIRONMENTAL MANAGEMENT
SYSTEM INCLUDING A FUZZY LOGIC CONTROL SYSTEM

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ABSTRACT OF THE DISCLOSURE

A controller for a variable air volume terminal of a variable air volume air conditioning system which comprises a temperature sensing circuitry for generating a temperature process value, a setpoint determining circuitry for establishing a temperature setpoint, an airflow signal circuitry for generating an airflow setpoint in response to the temperature process value and the temperature setpoint. A flow sensing circuitry for generating a flow process value in response to a predetermined set of flow sensing inputs and damper control circuitry for generating a damper motor operation signal to control the damper motor in response to the flow process value and the airflow setpoint. The damper control circuitry comprises a fuzzy logic control mechanism for implementing a set of fuzzy logic rule-based instructions in generating the damper motor operating signal.

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